

National Climatic Data Center

DATA DOCUMENTATION

FOR

DATASET 1173 (DSI-1173)

ICOADS

May 10, 2005

National Climatic Data Center
151 Patton Ave.
Asheville, NC 28801-5001 USA

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1. Abstract: International Comprehensive Ocean-Atmosphere Data Set (ICOADS) is the world's largest collection of marine surface in situ observations with 185+ million records for 1784 through the present. ICOADS is developed and maintained as a cooperative effort between NSF's National Center for Atmospheric Research (NCAR) and the National Oceanic and Atmospheric Administration (NOAA): specifically its Climate Diagnostics Center (CDC), in conjunction with the Cooperative Institute for Research Sciences (CIRES) of the University of Colorado, and its National Climatic Data Center (NCDC).

ICOADS is a collection of global marine surface observations from 1784-present. The data is originally from Surface Marine Observations, DS-1129, however, at the time of this writing, data is only available from 2002 to 2004. NCDC plans to eventually make the entire data set available. The coverage is global and sampling density varies depending on date and position relative to major ocean shipping routes.

ICOADS data are made available through observations that are taken primarily from ships (merchant, ocean research, fishing, navy, etc.) and moored and drifting buoys. Each report contains individual observations of meteorological and oceanographic variables, such as sea surface and air temperatures, winds, pressure, humidity, wet bulb, dew point, ocean waves and cloudiness.

Also available from NCDC, but separate from DS-1173, are monthly statistics of observations. The monthly time series are available from 119 ships or buoys dating back to November, 2001. After the observations are summarized the data are not interpolated or analyzed to fill data voids. The spatial coverage varies depending on the date and position relative to major ocean shipping routes. A monthly summary for an area box includes ten statistics (e.g. mean, median, standard deviation, etc.) for 22 observed and computed variables (e.g. sea surface and air temperature, wind, pressure, humidity, cloudiness, etc.). Monthly data is available in an ASCII table format.

<http://www.ncdc.noaa.gov/oa/climate/vosclim/vosclim.html>

2. Element Names and Definitions:

The format used for the ICOADS data set is the IMMA (International Maritime Meteorological Archive), however, the data is received and keyed in IMMT-2. IMMT-2 and all input data formats are converted into IMMA for ICOADS.

<http://www.ncdc.noaa.gov/oa/documentlibrary/vosclim/imma.pdf>

3. Start Date: 17840101

4. Stop Date: Present

5. Coverage:

- a. Southernmost Latitude: -90.0S
- b. Northernmost Latitude: 90.0N
- c. Westernmost Longitude: -180.0W
- d. Easternmost Longitude: 180.0E

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6. **How to Order Data:**

Ask NCDC's Climate Services about the cost of obtaining this data set.

Phone: 828-271-4800

FAX: 828-271-4876

E-mail: NCDC.Orders@noaa.gov

7. **Archiving Data Center:**

Archive Branch
National Climatic Data Center
151 Patton Avenue
Asheville, NC 28801

8. **Technical Contact:**

National Climatic Data Center
151 Patton Avenue
Asheville, NC 28801

9. **Known Uncorrected Problems:** None.

10. **Quality Statement:**

11. **Essential Companion Datasets:** DS-1129 - Marine Surface Observations

12. **References:**

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